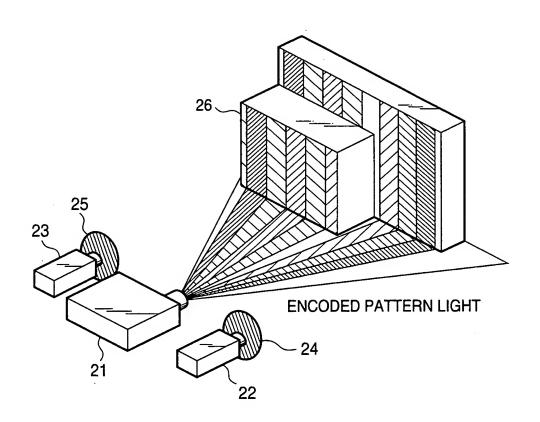
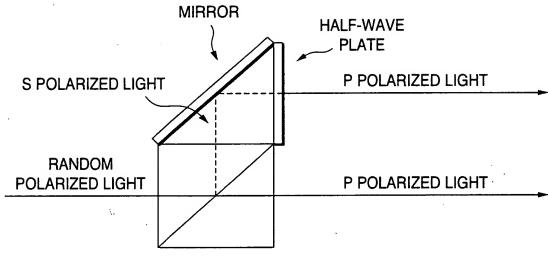


FIG. 1



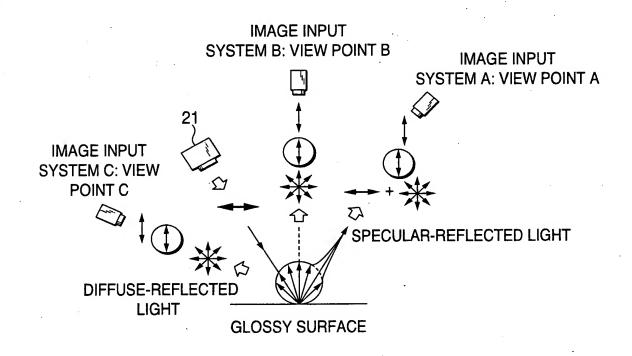
.

FIG. 2



POLARIZED LIGHT CONVERSION OPTICAL SYSTEM

FIG. 3



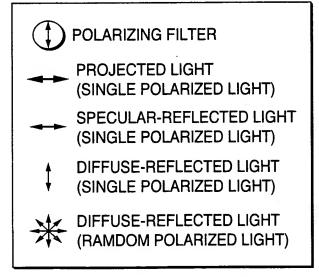
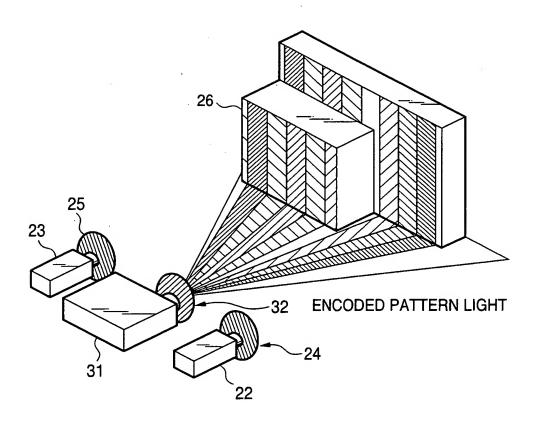


FIG. 4



150 140 CONTRAST DECREASING 130 O 3D IMAGE INPUT APPARATUS ACCORDING TO RELATED ART DECREASING 100 110 120 CONTRAST 3D IMAGE INPUT APPARATUS ACCORDING TO INVENTION SPECULAR REFLECTION CHARACTERISTIC SHIFT TO SPIKY RELATIVE-SPECULAR GLOSSINESS SPECULAR REFLECTION 8 REGION NARROWED FIG. 5 8 2 8 SPECULAR RÉFLECTION REGION RESTRAINED 20 SPECULAR REFLECTION REGION WIDENED 4 BROAD SPECULAR CHARACTERISTIC REFLECTION 3 8 9 CHARACTERISTIC DIFFUSE REFLECTION 20.0 40.0 30.0 10.0 0.0 70.0 0.09 50.0 100.0 90.0 80.0 RANGE DATA ACQUIRED RATE(%)

FIG. 6

RELATIVE-SPECULAR GLOSSINESS

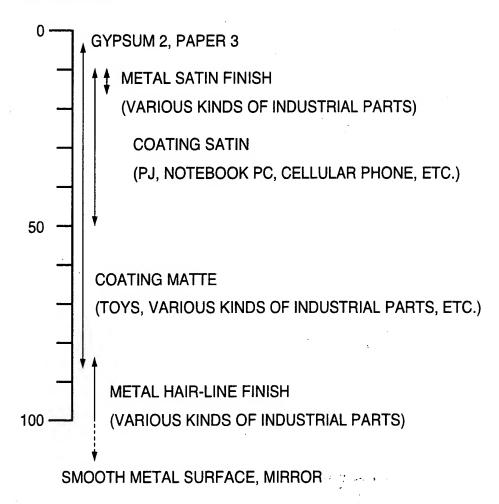


FIG. 7

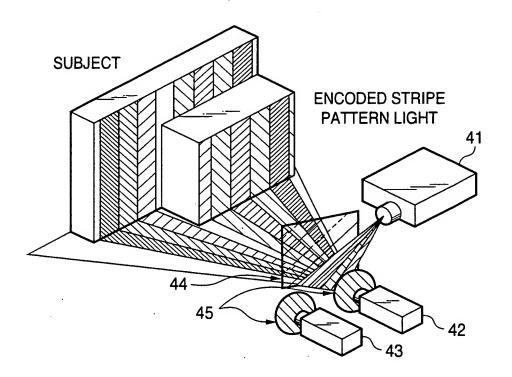


FIG. 8

NONIDENTICAL PRINCIPAL **POINT CAMERA 1** NONIDENTICAL PRINCIPAL **POINT CAMERA 2** LINEARLY POLARIZED LIGHT PROJECTOR SYSTEM HALF MIRROR **GLOSSY SURFACE IDENTICAL PRINCIPAL POINT CAMERA** PROJECTED LIGHT (LINEARLY POLARIZED LIGHT) SPECULAR-REFLECTED LIGHT (LINEARLY POLARIZED LIGHT) **DIFFUSE-REFLECTED LIGHT** (RANDOM POLARIZED LIGHT) **POLARIZING FILTER**

OBSERVED LIGHT

FIG. 9

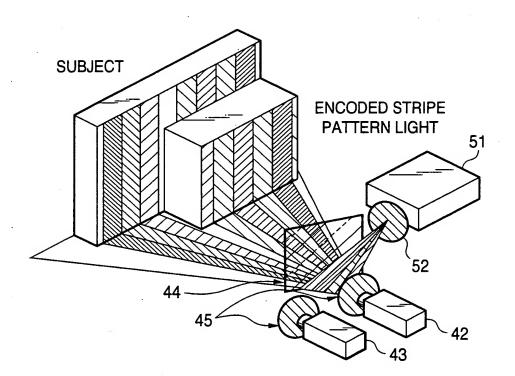


FIG. 10

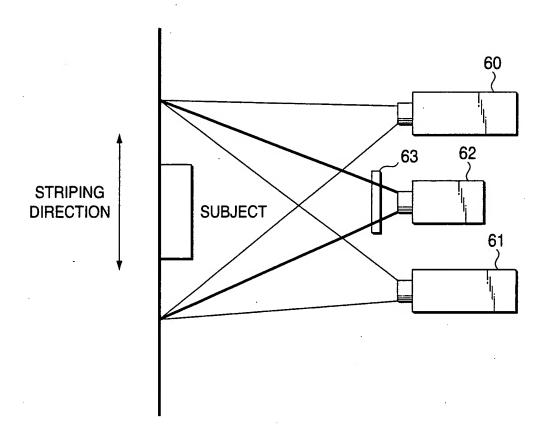


FIG. 11

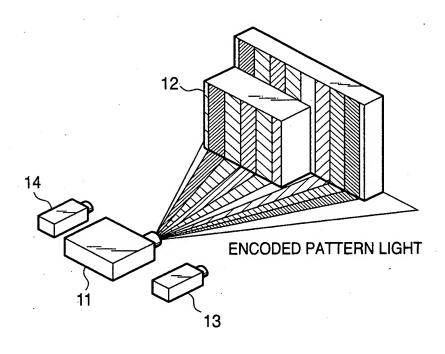


FIG. 12

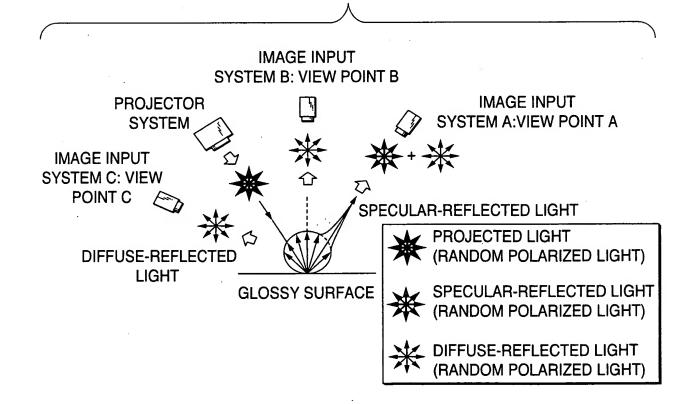


FIG. 13

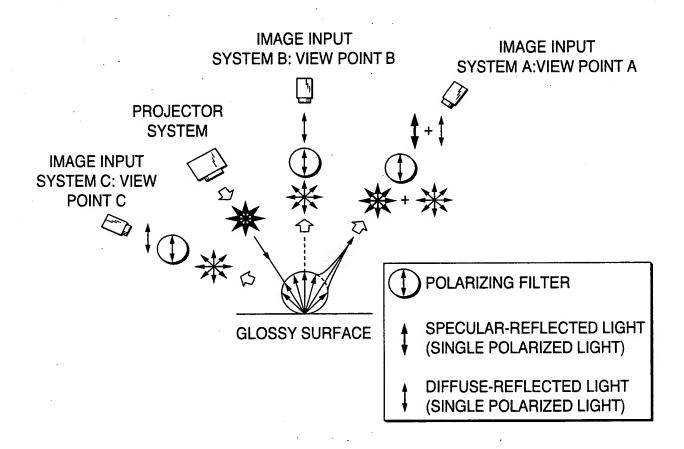


FIG. 14

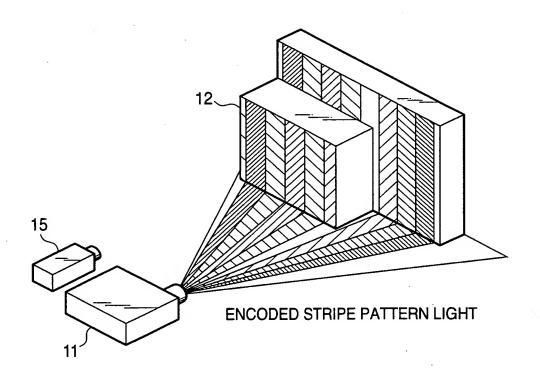


FIG. 15

